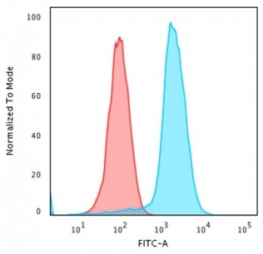
Pan-HLA Class II Antibody rHLA-Pan/3475 / HLA-DP/DQ/DR Antibody [clone rHLA-Pan/3475] (V8305)

Catalog No.	Formulation	Size
V8305-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8305-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8305SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

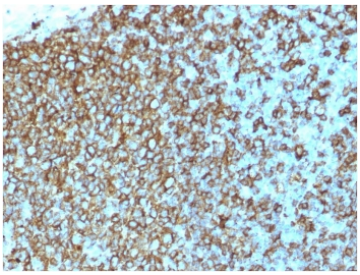
Recombinant MOUSE MONOCLONAL

Bulk quote request

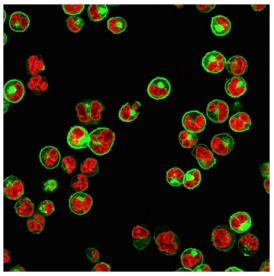
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rHLA-Pan/3475
Purity	Protein G affinity chromatography
UniProt	P04440 (HLA-DP); P01908; P01909; P01920 (HLA-DQ); P01903 (HLA-DR)
Localization	Cell surface
Applications	Flow cytometry: 1-2ug/10^6 cells in 0.1ml Immunofluorescence: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 1-2ug/ml
Limitations	This Pan-HLA Class II Antibody rHLA-Pan/3475 is available for research use only.



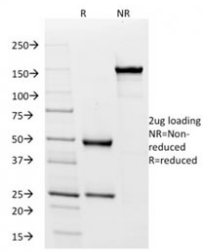
Pan-HLA Class II Antibody rHLA-Pan/3475 in Human Raji B Lymphoma Cells FACS. Flow cytometry testing of human Raji B lymphoma cells with Pan-HLA Class II Antibody rHLA-Pan/3475 / HLA-DP/DQ/DR Antibody. The antibody-stained population (blue) shows a strong fluorescence shift relative to the isotype control (red), demonstrating robust detection of cell-surface HLA class II molecules.



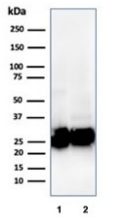
Pan-HLA Class II Antibody rHLA-Pan/3475 in Human Tonsil IHC. Immunohistochemistry testing of Pan-HLA Class II Antibody rHLA-Pan/3475 / HLA-DP/DQ/DR Antibody in FFPE human tonsil tissue. HIER was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 10-20 min followed by cooling prior to testing. Strong HLA class II immunoreactivity is observed throughout numerous lymphoid cells, with prominent membrane-associated staining.



Pan-HLA Class II Antibody rHLA-Pan/3475 in Human Raji B Lymphoma Cells IF. Immunofluorescence staining of human Raji B lymphoma cells with Pan-HLA Class II Antibody rHLA-Pan/3475 / HLA-DP/DQ/DR Antibody (green) and RedDot nuclear stain (red). Strong green immunoreactivity outlines the cells, demonstrating prominent membrane-associated HLA class II staining.



Purified Pan-HLA Class II Antibody rHLA-Pan/3475 SDS-PAGE. Electrophoretic analysis of purified, BSA-free Pan-HLA Class II Antibody rHLA-Pan/3475 / HLA-DP/DQ/DR Antibody under reducing (R) and non-reducing (NR) conditions using a 2 ug antibody load. The non-reduced antibody migrates predominantly near ~150 kDa, while reduction produces prominent immunoglobulin heavy and light chain components near ~50 kDa and ~25 kDa, respectively, supporting the integrity and purity of the recombinant antibody preparation.



Pan-HLA Class II Antibody rHLA-Pan/3475 in Human Ramos B Lymphoma Cells and Spleen WB. Western blot testing of Pan-HLA Class II Antibody rHLA-Pan/3475 / HLA-DP/DQ/DR Antibody with human 1) Ramos B lymphoma cell and 2) spleen tissue lysate. A strong band is observed at approximately 27-30 kDa in both samples, consistent with detection of an HLA class II beta-chain component.

Description

Pan-HLA Class II Antibody rHLA-Pan/3475 / HLA-DP/DQ/DR Antibody recognizes a common epitope of the classical human MHC class II antigens HLA-DP, HLA-DQ and HLA-DR. These cell-surface glycoproteins are central to adaptive immunity, where they present processed antigenic peptides to CD4-positive T lymphocytes. Recognition of peptide-MHC class II complexes by T cell receptors contributes to helper T cell activation and helps coordinate antigen-specific cellular and humoral immune responses.

HLA-DP, HLA-DQ and HLA-DR are heterodimeric molecules composed of non-covalently associated alpha and beta chains. The extracellular portions of both chains contribute to formation of the peptide-binding groove characteristic of MHC class II proteins. Antigens internalized by antigen-presenting cells are processed within intracellular compartments, where resulting peptides can be loaded onto MHC class II molecules. Stable peptide-HLA complexes are then transported to the plasma membrane for recognition by CD4-positive T cells.

MHC class II molecules are expressed primarily by professional antigen-presenting cells, including B lymphocytes, dendritic cells and macrophages. Expression can also occur in other cell populations following activation or inflammatory signaling. Regulation of HLA class II abundance influences the capacity of cells to present antigen and communicate with

helper T lymphocytes, making these molecules important in studies of immune-cell differentiation, activation and inflammatory responses.

A Pan-HLA Class II Antibody provides broad recognition of HLA-DP, HLA-DQ and HLA-DR rather than limiting detection to an individual HLA class II locus. This allows investigation of overall MHC class II expression and complements locus-specific reagents used to distinguish DP, DQ or DR. Broad HLA class II detection is relevant to research involving antigen-presenting cells, transplantation, infectious disease, autoimmunity, inflammation and tumor immunology.

Clone rHLA-Pan/3475 is a recombinant mouse monoclonal antibody generated from an antibody raised against the human REH6 acute lymphoblastic leukemia cell line and is characterized as recognizing a common epitope of human HLA-DP, HLA-DQ and HLA-DR. NSJ Bioreagents provides this Pan-HLA Class II Antibody for research into MHC class II expression, antigen presentation and adaptive immunity. An HLA-DP/DQ/DR Antibody can support investigation of broad HLA class II expression and CD4 T cell-mediated immune recognition.

For additional information on HLA class II biology and complementary antibody validation, visit our HLA-DP/DQ/DR Antibody CR3/43 / MHC Class II Antibody page.

Application Notes

Optimal dilution of the Pan-HLA Class II Antibody rHLA-Pan/3475 / HLA-DP/DQ/DR Antibody should be determined by the researcher.

Immunogen

The non-T, non-B human acute lymphoblastic leukemia REH6 cell line was used as the immunogen for the Pan-HLA Class II Antibody rHLA-Pan/3475.

Storage

Store the Pan-HLA Class II Antibody rHLA-Pan/3475 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Pan-HLA Class II antibody, HLA-DP/DQ/DR antibody, Pan-MHC Class II antibody, HLA Class II antibody, MHC Class II antibody

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